

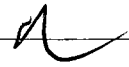
Work Order ID 128725

January-22-15 2:17:43 PM

128725

Page 1

Item ID: D6015-125 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Crosstube Material
 Start Date: 1/22/15 Start Qty: 80.00 ***80*** Cust Item ID:
 Required Date: 2/20/15 Req'd Qty: 80.00 ***80*** Customer:
 Reference:

Approvals: Process Plan:  Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D6015	Rev C								

100 PURCHASING 0.00

100

Purchasing

Purchasing

Memo

Issue P/O 27190

- A) Extrude and manufacture as per Dwg D6015
- B) Material: AISI 4130 (AMS 6371) seamless steel tube
- C) Material certification is required

EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS.

MUST BE WELL PACKAGE, IF NOT IT WILL BE REFUSE

CL 15/01/26 80

110 Receive & Inspect for Damage & Mat'l Certs 0.00

110

Packaging

Packaging

Memo

Ensure material certification is attached

80X SP15-03-6

Work Order ID 128725

January-22-15 2:17:43 PM

128725

Page 2

Item ID: D6015-125 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Crosstube Material
 Start Date: 1/22/15 Start Qty: 80.00 ***80*** Cust Item ID:
 Required Date: 2/20/15 Req'd Qty: 80.00 ***80*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC6- Inspect dimensions to drawing	0.00							
120									DAS
QC	Memo	0.00							9
Quality Control	Ensure Material certification comply to Dwg D6015								9-89
130	Identify as per dwg & Stock Location: <u>HALL</u>	0.00							
130									
Packaging	Memo	0.00							
Packaging									
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									

(80) 15-03-11

JW 15-03-11

MLJ 15-03-13

MF
15-3-12

January-22-15 2:17:42 PM

Page 1

128725

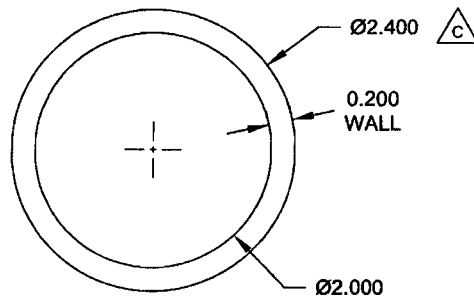
D6015-125

Required Qty: 80.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6015-125P		Purchased	No			110	Each	0.0000	1	80			
D6015-125P									**	80x 8015-03			
Crosstube Material													

D6015-125P
Crosstube Material

SPECIFICATION CONTROL DRAWING



NOTES

- 1) D6015-XXX CROSSTUBE
LENGTH

WHERE XXX IS LENGTH IN INCHES
EG. 125" LONG TUBE: D6015-125

- 2) MATERIAL: AISI 4130 (AMS 6371) SEAMLESS STEEL TUBE
2.400 OD x 2.000 ID
ANNEALED

- 3) TOLERANCES ARE PER ASTM A519 AS FOLLOWS:

O.D.: +0.007/-0.000

I.D.: +0.000/-0.007

LENGTH: XXX +0.188/-0.000

STRAIGHTNESS: 0.010" DEVIATION / 12" LENGTH

- 4) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.

46128725

RELEASED
2011-01-18

REV.	DESCRIPTION	BY	DATE
C	2.400 WAS 2.500 (C5-1), ODxID WAS ODxWALL (A8-1)	CP	10.11.23
B	REMOVE "NORMALIZED"	CP	06.06.30
A	NEW ISSUE	CP	06.04.18
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	10.11.23		

DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWING NO. D6015	REV. C SHEET 1 OF 1
TITLE CROSSTUBE MATERIAL	SCALE NTS
COPYRIGHT © 2006 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

Linda Lacelle

From: Bill Beckett
Sent: January-22-15 2:15 PM
To: Alain Madore; David Shepherd; Linda Lacelle; Nigel Forbes
Subject: RE: D6015-125

All – I agree that we need to continue with the 4130 version in the short/medium term. The minimum quantity purchase is relatively low cost insurance.
Bill

From: Alain Madore
Sent: Thursday, January 22, 2015 9:26 AM
To: David Shepherd; Linda Lacelle; Nigel Forbes
Cc: Bill Beckett
Subject: RE: D6015-125

Bill,

My understanding is that we will continue to sell the standard steel crosstubes, at least for the rest of the year until we have a good understanding on the costing of both options. Can you confirm?

Alain

From: David Shepherd
Sent: January 21, 2015 12:12 PM
To: Linda Lacelle; Nigel Forbes
Cc: Bill Beckett; Alain Madore
Subject: RE: D6015-125

Linda,

I don't really feel this is my decision to make, but I can tell you what I know.

The timeline on having the new AS 350 SS crosstubes TCCA/FAA/EASA approved is probably end of March. At that time, we could start making stainless steel crosstubes only. However, I am not sure whether we will have sorted out all the costing issues by then and will have to charge a premium for the stainless steel version.

If the price to the customer will be the same, then I think we can probably hold off ordering any more 4130 material and switch to the stainless steel.

Bill/Alain,

I think you need to provide direction here.

Regards,
David

From: Linda Lacelle
Sent: January-20-15 12:52 PM
To: Nigel Forbes; David Shepherd
Subject: D6015-125

Nigel/David,

We are quickly running out of stock on the 350 crosstube material(4130) – 31 stk, 12 still allocated for the order of Avic, so a total of 19 left..our min order is 80 pcs, but it might be worth purchasing so we don't run out of stk to make the current 350 crosstubes. We really don't know when the SS ones will be approved and ready to go, do we??

Please let me know asap..

Thx

Linda



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO27190**

Purchase Order Date 1/23/2015

PO Print Date 1/26/2015

Page Number 1 of 2

131720

Order From :

VU-FAC001

FACTORY STEEL
14020 OAKLAND AVE.
DETROIT, MI 48203
US

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 313 883 6300

Ship To Contact

Ship To Phone

Ship Via: Yellow Standard collect

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

USD

FOB

Destination-Collect

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	D6015-125P ***EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS.*** EXTRUDE AS PER DWG D6015 REV. C B128725 MATERIAL: AISI 4130 (AMS 6371) SEAMLESS STEEL TUBE 2.400" OD X 2.000" ID X .200" WALL AT 125" LONG	Crosstube Material	2/23/2015 Yes 2/23/2015		80.00 Each	\$180.00	\$14,400.00
2	71425-11	WOOD SHIPPING CRATE	2/23/2015 No 2/23/2015		1.00 Each	\$750.00	\$750.00

Line Total: \$14,400.00

Line Total: \$750.00

Note:

1/26/2015

PACKING LIST

No. 46028

PG 1 OF 1



PL

m 131724.



SO

FACTORY STEEL & METAL SUPPLY 14020 OAKLAND AVENUE DETROIT, MI 48203 (313)883-6300 PHONE (313)883-4883 FAX		PURCHASE ORDER # P023341 JOB NAME		BUYER CHANTEL LAVOIE Tel (613) 632-3336 Fax (613) 632-4443		SHIP DATE 03/02/2015 SHIP VIA YRC			
		SALES ORDER # 39513		ORDER DATE 01/23/2015		SALES REP MICK HALON		RESALE # 59-2958719	
SOLD TO DART AEROSPACE 1270 ABERDEEN STREET HAWKESBURY, ON K6A 1K7		SHIP TO DART AEROSPACE 1270 ABERDEEN STREET HAWKESBURY, ON K6A 1K7		SHIP INST YRC		CARRIER YRC			
				PRO#		BLIND Y/N N			
				TERMS NET 30 DAYS		FOB DETROIT			

LINE	QUANTITY	DESCRIPTION	WIDTH	LENGTH	WEIGHT	UNIT PRICE	TOTAL
1	80 PCS	4130N CD SMLSS RD TUBE 2.400" OD X .200W Our Tag # Mill Ref # Heat # 105995 066711 00A145108		125.000"	3,916.665		
		Pcs Total Ft 80 833.333					
2	1 PC	WOOD SHIPPING CRATE MTRS (CIRCLE) FAX SHIPMENT INVOICE ALL DATE: _____ INITIAL: _____					

Sp 15036.

TOTAL WT 3,916 LBS		TOTAL	
RECEIVED BY - SIGNATURE	RECEIVED BY - PRINTED NAME	DATE RECEIVED	



TEST REPORT

6792

MICHIGAN SEAMLESS TUBE

SOUTH LYON, MICHIGAN 48178

SHIPMENT

001

ORDER NUMBER	CUSTOMER ORDER NUMBER	DATE	OFC	COM	DIWI	NET SLS	GR SLS	ACCOUNT NUMBER	US	PAGE
066711	2620	01/23/15	22	00	15	16	01	02598001FCO	BN 2ME	1

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FACTORY STEEL & METAL SUPPLY
14020 OAKLAND
DETROIT MI USA 48203

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P
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O

FACTORY STEEL & METAL SUPPLY
14020 OAKLAND AVENUE
DETROIT MI 48203

SN
TR
INV

ROUTING

OPEN TOP/FULLY TARPED/FOB SOUTH LYON MI

PPD TRUCK

ANALYSIS	SHAPE	PRODUCT	FC	ANNEAL	REQUESTED
4130	ROUND	COLD DRAWN		PER SPEC	02/20/15
SPECIFICATION		CMST	DESCRIPTION		PROMISE
SEAMLESS		AMS-6371/A519	CD ALLOY AIRCRAFT		02/20/15

SPECIAL INSTRUCTIONS

OIL DEAR COMP. MARK & CERT TO A519-96, MILT-6736BN NOTE-2, AMS-6360M,
AMS-6371K, AMS-T-6736AN & 4130H. CERT TO AMS-2301J & DEARB LEVELS
TO AMS-6371. PRODUCE FROM 1-HT. 80M PSI MIN YLD, AIM 90 PSI. KERF
+0.188"/-0", AIM EXACT. STRAIGHTNESS & SURFACE CRITICAL. NO MARKS.
NO CIRCUM GRIND MARKS. MARK TO INCL GRADE & ALL SPECS. BOX MAT'L.

ITEM	QUANTITY	O.D.	I.D.	WALL	LENGTH	WT/FT	WEIGHT
		2.400	2.000			4.699	09:38:38
		+.0070	+.0000				02/24/15
		-.0000	-.0070				

ITM BALE --BALE--

NUM NUM PCS FTG HEAT NO.
1 3 W 80 834 00A145108

ITM PART
STATUS NUMBER
CUT 10' 5.000" COM

HEAT NO.	C	Mn	P	S	Si	Ni	Cr	Mo	Cu	Al	REMARKS
00A145108	.300	.510	.008	.015	.260	.090	1.020	.170	.150	.027	EF SDI

HEAT NO.	ULT. STR. PSI	YIELD, PSI	% ELONG	HARDNESS	HYDRO TEST PSI	ULTRA SONIC %	EDDY CURRENT	EXPANSION
00A145108	123,762	111,748	21.9	HBW 235-255			OK	
					BEND	FLATTEN	FLARE	REV. FLATTEN
								FLANGE

OTHER TEST
DECARB OK GRAIN SIZE 8
FREQ 0.00 SEV 0.00
MACROS: S1 R1 C2
J1 J2 J3 J4 J5 J6 J7 J8 J9 J10
50 50 48 45 40 36 34 33 31 30
MELTED & MANUFACTURED IN USA

We hereby certify that the reported data are correct according to Michigan Seamless Tube tests and those of its suppliers.

8.2.P8.P9 Rev

INVOICE

FACTORY STEEL & METAL SUPPLY
14020 OAKLAND AVENUE
DETROIT, MI 48203

PHONE #: (313)883-6300
FAX #: (313)883-4883

INVOICE	NUMBER #37721	PAGE 1	DATE 03/02/2015
SALESPERSON: MICK HALON			SHIP DATE: 03/02/2015
CUST ID: DA3336	CARRIER: YRC		CUST ID: DA3336
CUST P.O.#: PO23341	BLIND Y/N: N		OUR S.O.#: 39513

SOLD TO:
DART AEROSPACE
1270 ABERDEEN STREET
HAWKESBURY, ON K6A 1K7

SHIP TO:
DART AEROSPACE
1270 ABERDEEN STREET
HAWKESBURY, ON K6A 1K7

LINE	QTY ORDERED	SHIPPED TO DATE	QTY THIS SHIPMENT	QTY ON BACKORDER	ITEM ID	WIDTH	LENGTH	WEIGHT	UNIT PRICE	AMOUNT
1	80 PCS	0	80	0	RD-N.2400200 4130N CD SMLSS RD TUBE 2.400" OD X .200W		125.000"	3,916.665	180.0000/PC	14,400.00
2	1 PCS	0	1	0	WOOD SHIPPING CRATE				750.0000/PC	750.00

BUYER: CHANTEL LAVOIE	
PHONE #: (613)632-3336	FAX #: (613)632-4443
TAX ID: 59-2958719	SHIP WT: 3,916.665 LBS
TERMS: NET 30 DAYS	SUBTOTAL 15,150.00
PAYMENT DUE BY 04/01/2015.	O/S 0.00
	TOTAL 15,150.00

****PLEASE REFER TO OUR PACKING LIST FOR ACTUAL QUANTITY/FOOTAGE RECEIVED****
HOURS: MONDAY - THURSDAY 9:00-5:00 / FRI 9:00-3:00 / SAT & SUN CLOSED
WE ACCEPT ALL MAJOR CREDIT CARDS

1. VENDOR NAME AND ADDRESS FACTORY STEEL & METAL SUPPLY 14020 OAKLAND AVE. DETROIT, MI 48203		2. DATE OF DIRECT 3/2/2015	
		3. PURCHASE ORDER NUMBER PO # 23341	
4. CONSIGNEE NAME AND ADDRESS DART AEROSPACE 1270 ABERDEEN STREET HAWKESBURY ONTARIO K6A 1K7		5. PURCHASER'S NAME AND ADDRESS (IF OTHER THAN CONSIGNEES)	
6. COUNTRY OF TRANSSHIPMENT HAWLESBURY ONTARIO		7. COUNTRY OF ORIGIN UNITED STATES	
8. TRANSPORTATION Y R C		9. CONDITIONS OF SALE AND TERMS OF PAYMENT NET 30	
10. METHOD OF PAYMENT US FUNDS		11. NUMBER OF PIECES: 80 PCS.	
12. DESCRIPTION OF MATERIAL 4130 STEEL TUBES COLD DRAWN SEAMLESS 2.400 OD X 200 WALL X 125.000" WOOD CRATE FOR SHIPPING		13. QUANTITY	SELLING PRICE
		14. UNIT PRICE	15. TOTAL
	80 PCS.	180.00EA	14,400.00
			750.00
16. IF ANY OF FIELDS 1 TO 8 ARE INCLUDED ON AN ATTACHED INVOICE, PLACE AN "X" IN THIS BOX: INVOICE NUMBER _____		17. TARIFF NUMBER <u>7304.51</u>	
		18 \$15,150.00	
19. EXPORTER NAME AND ADDRESS IF OTHER THAN VENDOR		20. ORIGINATOR (NAME AND ADDRESS) MICK HALON 14020 OAKLAND AVE DETROIT MI 48203	
21. REVENUE CANADA RULING IF APPLICABLE		22. IF FIELDS 23 AND 24 ARE NOT APPLICABLE, PLACE AN "X" IN THIS BOX: X	
23. IF INCLUDED IN FIELD 18, INDICATE AMOUNT A. TRANSPORTATION CHARGES, EXPENSES AND INSURANCE FROM THE PLACE OF DIRECT SHIPMENT TO CANADA _____ B. COSTS FOR CONSTRUCTION, ERECTION AND ASSEMBLY INCURRED AFTER IMPORTATION TO CANADA _____ C. EXPORT PACKAGING _____		24. IF INCLUDED IN FIELD 18, INDICATE AMOUNT A. TRANSPORTATION CHARGES, EXPENSES AND INSURANCE FROM THE PLACE OF DIRECT SHIPMENT TO CANADA _____ B. COSTS FOR CONSTRUCTION, ERECTION AND ASSEMBLY INCURRED AFTER IMPORTATION TO CANADA _____ C. EXPORT PACKAGING _____	

UNITED STATES CUSTOMS SERVICE

NORTH AMERICAN FREE TRADE AGREEMENT
CERTIFICATE OF ORIGIN

1. EXPORTER NAME AND ADDRESS FACTORY STEEL & METAL SUPPLY 14020 OAKLAND AVE. DETROIT, MI 48203 TAX ID NUMBER: 38-126-8118	2. BLANKET PERIOD (DD/MM/YY) FORM: 03-02-2015 TO: 03-01-2016
3. PRODUCER'S NAME AND ADDRESS AVAILABLE UPON REQUEST TAX IDENTIFICATION NUMBER:	4. SOLD TO: DART AEROSPACE 1270 ABERDEEN STREET HAWKESBURY ONTARIO K6A 1K7

5. DESCRIPTION OF GOODS	6. HS TARIFF CLASSIFICATION NUMBER	7. PREFERENCE CRITERION	8. PRODUCER	9. NET COST	10. COUNTRY OF ORIGIN
4130 STEEL TUBES COLD DRAWN SEAMLESS 80 PCS. 2.400 OD X 200 WALL X 125.000"	7304.51	B	NO	NO	US

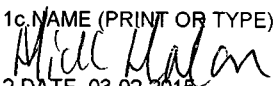
I CERTIFY THAT:

THE INFORMATION ON THIS DOCUMENT IS TRUE AND ACCURATE AND I ASSUME THE RESPONSIBILITY FOR PROVIDING SUCH REPRESENTATIONS. I UNDERSTAND THAT I AM LIABLE FOR ANY FALSE STATEMENTS OR MATERIAL OMISSIONS MADE ON OR IN CONNECTION WITH THE DOCUMENT;

I AGREE TO MAINTAIN, AND PRESENT UPON REQUEST, DOCUMENTATION NECESSARY TO SUPPORT THIS CERTIFICATE, AND TO INFORM, IN WRITING, ALL PERSONS TO WHOM THE CERTIFICATE WAS GIVEN OF ANY CHANGES THAT COULD AFFECT THE ACCURACY OR VALIDITY OF THIS CERTIFICATE;

THE GOODS ORIGINATED IN THE TERRITORY OF ONE OR MORE OF THE PARTIES, AND COMPLY WITH THE ORIGIN REQUIREMENTS SPECIFIED FOR THOSE GOODS IN THE NORTH AMERICAN FREE TRADE AGREEMENT, AND UNLESS SPECIFICALLY EXEMPTED IN ARTICLE 411 OR ANNEX 401, THERE HAS BEEN NO FURTHER PRODUCTION OR ANY OTHER OPERATION OUTSIDE THE TERRITORIES OF THE PARTIES; AND

THIS CERTIFICATE CONSISTS OF 1 PAGES, INCLUDING ALL ATTACHEMENTS.

11a. AUTHORIZED SIGNATURE MICK HALON 11c. NAME (PRINT OR TYPE)  12 DATE 03-02-2015	11b. FACTORY STEEL & METAL SUPPLY CO 11d. SALES 11f. TELEPHONE NUMBERS (VOICE) 313-883-6300 (FACSIMILE) 313-883-4883
--	--

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: N6015-125
 DATE: 15-03-11

PO / BATCH NO.: B128725 / PO#27190

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 80
 QUANTITY INSPECTED: 80
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 200"
 THICKNESS RECEIVED: .200"
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	(N)	
CORRECT FINISH	(Y)	N	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	(Y)	N	
CORRECT MATERIAL	(Y)	N	
CORRECT THICKNESS	(Y)	N	
PHOTO REQUIRED	Y	(N)	
CORRECT MATERIAL	(Y)	N	
CORRECT REF # TO LINK CERT	(Y)	N	<u>HT# DDA145108</u>
CORRECT MATERIAL IDENTIFICATION	(Y)	N	<u>N6015-125</u>
CORRECT M# ON THE MATERIAL	(Y)	N	<u>B128725</u>
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	

testers located in the Quality Office

QC 13 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>9</u> DATE: <u>15-03-10</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

12-03-80

6758152
19012-152
25-004/3100

0
80
80
100

12-03-80
19012-152

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10
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100

0018152 10451160